

Please amend the claims as follows. This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

Claim 1 (Currently Amended): ~~In a chemical mechanical planarization (CMP) system,~~ a processing surface temperature controller, comprising:

an array of thermal elements, each of the thermal elements of the array being independently controlled, the array of thermal elements being positioned to contact a back surface of the processing surface, and

a controller connected to each of the thermal elements of the array, the controller being configured to manage a surface temperature of the processing surface,

wherein the processing surface temperature controller is defined in a chemical mechanical planarization (CMP) system.

Claim 2. (Cancelled)

Claim 3. (Currently Amended): ~~In a chemical mechanical planarization (CMP) system,~~ The processing surface temperature controller of claim 1, wherein the processing surface includes a plurality of processing zones, and wherein each of the thermal elements of the array of thermal elements corresponds to a processing zone, the thermal elements of the array being independently controlled to manipulate a the surface temperature of the processing zone corresponding to the thermal element.

Claim 4. (Currently Amended): ~~In a chemical mechanical planarization (CMP) system,~~ The processing surface temperature controller of claim 3, wherein each of the

thermal elements of the array of thermal elements is configured to apply thermal energy to the processing zone corresponding to the thermal element to raise the surface temperature of the processing zone corresponding to the thermal element.

Claim 5. (Currently Amended): ~~In a chemical mechanical planarization (CMP)~~
~~system, the~~ The processing surface temperature controller of claim 3, wherein each of the thermal elements of the array of thermal elements is configured to apply thermal energy to the processing zone corresponding to the thermal element to lower the surface temperature of the processing zone corresponding the thermal element.

Claim 6 (Currently Amended): ~~In a chemical mechanical planarization (CMP)~~
~~system, a~~ A method for controlling the a temperature of a processing surface, comprising:
applying thermal energy to a linear array of locations on a backside of the processing surface defined in a chemical mechanical planarization (CMP) system, the linear array of locations spanning from a first location to a second location of the processing surface; and
controlling a degree of the applied thermal energy at each of the linear array of locations.

Claim 7 (Currently Amended): ~~In a chemical mechanical planarization (CMP)~~
~~system, the~~ The method for controlling the temperature of the processing surface as recited in claim 6, wherein each location of the linear array of locations includes a thermal unit, the thermal unit being configured to apply thermal energy to the backside of the processing surface.

Claim 8 (Currently Amended): ~~In a chemical mechanical planarization (CMP)~~
~~system, the~~ The method for controlling the temperature of the processing surface as recited in
claim 7, wherein each thermal unit is connected to a processing surface temperature
controller, the processing surface temperature controller being configured to control the
application of thermal energy by each thermal unit in order to maintain a desired processing
surface temperature.

Claim 9 (Currently Amended): ~~In a chemical mechanical planarization (CMP)~~
~~system, the~~ The method for controlling the temperature of the processing surface as recited in
claim 8, wherein each location of the linear array of locations corresponds to a processing
zone of the processing surface, and wherein each a thermal unit is configured to apply
thermal energy to the backside of the processing surface to control a processing temperature
of the processing zone.

Claim 10 (Currently Amended): ~~In a chemical mechanical planarization (CMP)~~
~~system, the~~ The method for controlling the temperature of the processing surface as recited in
claim 9, wherein each thermal unit is configured to apply thermal energy to the backside of
the processing surface to increase the temperature of the processing zone.

Claim 11 (Currently Amended): ~~In a chemical mechanical planarization (CMP)~~
~~system, the~~ The method for controlling the temperature of the processing surface as recited in
claim 9, wherein each thermal unit is configured to apply thermal energy to the backside of
the ~~linear belt processing surface~~ to decrease the temperature of the processing zone.

Claim 12 (Original): In a chemical mechanical planarization (CMP) system, the CMP system including an outer preparation surface and an inner surface, a preparation surface conditioner, comprising:

an array of conditioning pucks for conditioning the outer preparation surface, each of the conditioning pucks of the array being independently controlled.

Claim 13 (Original): In a chemical mechanical planarization (CMP) system, the CMP system including an outer preparation surface and an inner surface, the preparation surface conditioner as recited in claim 12, further comprising:

an array of spray nozzles for rinsing the outer preparation surface and the conditioning pucks, each of the spray nozzles of the array being independently controlled.

Claim 14 (Original): In a chemical mechanical planarization (CMP) system, the CMP system including an outer preparation surface and an inner surface, the preparation surface conditioner as recited in claim 13, further comprising:

an array of thistle brushes configured to sweep the outer preparation surface.

Claim 15 (Original): In a chemical mechanical planarization (CMP) system, the CMP system including an outer preparation surface and an inner surface, the preparation surface conditioner as recited in claim 12, wherein each of the conditioning pucks of the array is independently controlled and is configurable to apply a pressure against the outer preparation surface from about 0.1 PSI to about 2.0 PSI.

Claim 16 (Original): In a chemical mechanical planarization (CMP) system, the CMP system having an outer processing surface and an inner surface, a method for

conditioning the outer processing surface, comprising:

distributing a plurality of independent conditioning elements along a linear path; and
applying each of the plurality of independent conditioning elements to the outer processing surface.

Claim 17 (Original): In a chemical mechanical planarization (CMP) system, the CMP system having an outer processing surface and an inner surface, the method for conditioning the outer processing surface as recited in claim 16, further comprising:

distributing a plurality of spray nozzles along a linear path; and
rinsing the outer preparation surface using each of the plurality of spray nozzles along the linear path.

Claim 18 (Original): In a chemical mechanical planarization (CMP) system, the CMP system having an outer processing surface and an inner surface, the method for conditioning the outer processing surface as recited in claim 17, further comprising:

distributing a plurality of thistle brushes along a linear path; and
cleaning the outer preparation surface using each of the plurality of thistle brushes along the linear path.

Claim 19 (Original): In a chemical mechanical planarization (CMP) system, the CMP system having an outer processing surface and an inner surface, the method for conditioning the outer processing surface as recited in claim 16, wherein the independent conditioning elements are configurable to apply a pressure against the outer preparation surface from about 0.1 PSI to about 2.0 PSI.

Claim 20 (Original): In a chemical mechanical planarization (CMP) system, the CMP system having an outer processing surface and an inner surface, the method for conditioning the outer processing surface as recited in claim 16, wherein the CMP system is a linear belt CMP processing system.